
PART F
MATERIAL HANDLING, STORAGE, USE AND DISPOSAL

WAC 296-155-325 General requirements for storage.

- (1) General.
 - (a) All materials stored in tiers shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling or collapse.
 - (b) Maximum safe load limits of floors within buildings and structures, in pounds per square foot, shall be conspicuously posted in all storage areas, except for floor or slab on grade. Maximum safe loads shall not be exceeded.
 - (c) Aisles and passageways shall be kept clear to provide for the free and safe movement of material handling equipment or employees. Such areas shall be kept in good repair.
 - (d) When a difference in road or working levels exist, means such as ramps, blocking, or grading shall be used to ensure the safe movement of vehicles between the two levels.
- (2) Material storage.
 - (a)
 - (i) Material stored inside buildings under construction shall not be placed within 6 feet of any hoistway or inside floor openings, nor within 10 feet of an exterior wall which does not extend above the top of the material stored.
 - (ii) Temporary floors, used in steel erection, concrete forms and shoring (i.e., stripped forms, shoring jacks, clamps, steel rods or pipes, base plates, etc.) placed within close proximity to an open-sided floor for movement to another tier for placement, shall be considered “in-process equipment” and subject to the provisions contained in Parts “O” and “P” of this standard. When this type equipment is to be left overnight or for longer periods of time it shall be anchored and braced to prevent displacement in any direction. In addition this equipment shall be subject to the provisions of this subsection while in “interim storage.”
 - (b) Each employee required to work on stored material in silos, hoppers, tanks, and similar storage areas shall be equipped with personal fall arrest equipment meeting the requirements of chapter 296-155 WAC, Part C-1.
 - (c) Noncompatible materials shall be segregated in storage.
 - (d) Bagged materials shall be stacked by stepping back the layers and cross-keying the bags at least every 10 bags high.
 - (i) When cement and lime is delivered in paper bags they shall be carefully handled to prevent the bags bursting.
 - (ii) Cement and lime bags shall not be piled more than ten bags high except when stored in bins or enclosures built for the purpose of storage.
 - (iii) When bags are removed from the pile, the length of the pile shall be kept at an even height, and the necessary step backs every five bags maintained.

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- (iv) Persons handling cement and lime bags shall wear eye protection which prevents contact between the substance and the worker's eyes (such as goggles or other sealed eye protection) and shall wear long sleeve shirts with close fitting collar and cuffs.
- (v) Persons shall be warned against wearing clothing that has become hard and stiff with cement.
- (vi) Persons shall be instructed to report any susceptibility of their skin to cement and lime burns.
- (vii) A hand cream or Vaseline and eye wash shall be provided and kept ready for use to prevent burns.
- (viii) Lime shall be stored in a dry place to prevent a premature slacking action that may cause fire.
- (e) Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations.
- (f) Brick stacks shall not be more than 7 feet in height. When a loose brick stack reaches a height of 4 feet, it shall be tapered back 2 inches in every foot of height above the 4-foot level.
 - (i) Brick shall never be stacked, for storage purposes, on scaffolds or runways.
 - (ii) When delivering brick on scaffolds inside the wall lines in wheelbarrows, they shall be dumped toward the inside of the building and not toward the wall.
 - (iii) Blocks shall always be stacked and not thrown in a loose pile.
- (g) When masonry blocks are stacked higher than 6 feet, the stack shall be tapered back one-half block per tier above the 6-foot level.
 - (i) When blocks are stacked inside a building, the piles shall be so distributed as not to overload the floor on which they stand.
 - (ii) Blocks shall not be dropped or thrown from an elevation or delivered through chutes.
- (h) Lumber:
 - (i) Used lumber shall have all nails withdrawn before stacking.
 - (ii) Lumber shall be stacked on level and solidly supported sills.
 - (iii) Lumber shall be so stacked as to be stable and self-supporting.
 - (iv) Lumber stacks shall not exceed 20 feet in height provided that lumber to be handled manually shall not be stacked more than 16 feet high.
 - (v) All stored lumber shall be stacked on timber sills to keep it off the ground. Sills shall be placed level on solid supports.

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- (vi) Cross strips shall be placed in the stacks when they are stacked more than four feet high.
- (i) Structural steel, poles, pipe, bar stock, and other cylindrical materials, unless racked, shall be stacked and blocked so as to prevent spreading or tilting.
 - (i) Persons handling reinforcing steel shall wear heavy gloves.
 - (ii) When bending of reinforcing steel is done on the job, a strong bench shall be provided, set up on even dry ground or a floor for the persons to work on.
 - (iii) Structural steel shall be carefully piled to prevent danger of members rolling off or the pile toppling over.
 - (iv) Structural steel shall be kept in low piles, consideration being given to the sequence of use of the members.
 - (v) Corrugated and flat iron shall be stacked in flat piles, with the piles not more than four feet high and spacing strips shall be placed between each bundle.
- (j) Sand, gravel and crushed stone.
 - (i) Stock piles shall be frequently inspected to prevent their becoming unsafe by continued adding to or withdrawing from the stock.
 - (ii) If material becomes frozen, it shall not be removed in a manner that would produce an overhang.

[Statutory Authority: Chapter 49.17 RCW. 95-10-016, § 296-155-325, filed 4/25/95, effective 10/1/95; 94-15-096 (Order 94-07), § 296-155-325, filed 7/20/94, effective 9/20/94. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-325, filed 1/21/86; Order 74-26, § 296-155-325, filed 5/7/74, effective 6/6/74.]

WAC 296-155-329 Qualified person-Rigging. Qualified person - A person who, by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter. Also has authorization or authority by the nature of their position to take prompt corrective measures to eliminate them. The person shall be knowledgeable in the requirements of this part.

[Statutory Authority: Chapter 49.17.010, .040, .050, .060 RCW. 98-13-069 (Order 94-29), § 296-155-229, filed 6/15/98, effective 8/15/98.]

WAC 296-155-330 Rigging equipment for material handling.

- (1) General.
 - (a) Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service.
 - (b) Rigging equipment shall not be loaded in excess of its recommended safe working load, as prescribed in Tables F-1 through F-20 in this part and shall comply with ANSI/ASME B30.9-1996.
 - (c) Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.

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- (d) Special rigging accessories (i.e., spreader bars, grabs, hooks, clamps, etc.) or other lifting accessories shall be marked with the rated capacity. All components shall be proof tested to 125 percent of the rated load prior to the first use. Permanent records shall be maintained on the job site for all special rigging accessories.
- (2) Alloy steel chains. Chains used for overhead lifting shall be proof tested alloy steel.
 - (a) Welded alloy steel chain slings shall have permanently affixed durable identification stating size, grade, rated capacity, and sling manufacturer.
 - (b) Hooks, rings, oblong links, pear-shaped links, welded or mechanical coupling links, or other attachments, when used with alloy steel chains, shall have a rated capacity at least equal to that of the chain.
 - (c) The use of job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, etc., or other such attachments, shall be prohibited.
 - (d) Rated capacity (working load limit) for alloy steel chain slings shall conform to the values shown in Table F-1.
 - (e) Whenever wear at any point of any chain link exceeds that shown in Table F-2, the assembly shall be removed from service.
 - (f) If at any time any three foot length of chain is found to have stretched one-third the length of a link it shall be discarded.
 - (g) The practice of placing bolts, nails, or cold shuts between two links to shorten chains is prohibited.
 - (h) Splicing broken chains by inserting a bolt between two links with the heads of the bolt and the nut sustaining the load, or passing one link through another and inserting a bolt or nail to hold it, is prohibited.
 - (i) Wherever annealing of chains is attempted, it shall be done in properly equipped annealing furnaces and under the direct supervision of a competent person.
- (3) Wire rope.
 - (a) Table F-3 through F-14 shall be used to determine the safe working loads of various sizes and classifications of improved plow steel wire rope and wire rope slings with various types of terminals. For sizes, classifications, and grades not included in these tables, the safe working load recommended by the manufacturer for specific, identifiable products shall be followed, provided that a safety factor of not less than 5 is maintained.
 - (b) Protruding ends of strands in splices on slings and bridles shall be covered or blunted.
 - (c) Wire rope shall not be secured by knots.
 - (d) The following limitations shall apply to the use of wire rope:

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- (i) An eye splice made in any wire rope shall have not less than three full tucks.

Note: This requirement shall not preclude the use of another form of splice or connection which can be shown to be as efficient and which is not otherwise prohibited.

- (ii) Except for eye splices in the ends of wires and for endless rope slings, each wire rope used in hoisting or lowering, or in pulling loads, shall consist of one continuous piece without knot or splice.
- (iii) Wire rope shall not be used, if in any length of eight diameters, the total number of visible broken wires exceeds 10 percent of the total number of wires, or if the rope shows other signs of excessive wear, corrosion, or defect.
- (e) When U-bolt wire rope clips are used to form eyes, Table F-20 shall be used to determine the number and spacing of clips.
- (f) When used for eye splices, the U-bolt shall be applied so that the “U” section is in contact with the dead end of the rope.
- (g) U-Bolt wire rope clips shall be made of drop-forged steel.

Note: See Table F-20 for number of clamps and spacing requirements.

CORRECT METHOD OF ATTACHING WIRE ROPE CLIPS



U-Bolt of all clips on dead end of rope

- (h) Slings shall not be shortened with knots or bolts or other makeshift devices.
 - (i) Thimbles shall be used in cable eyes whenever practicable.
 - (j) The clamp nuts shall be tightened up frequently during the operation to prevent slipping.
- (4) Natural rope, and synthetic fiber.
- (a) General. When using natural or synthetic fiber rope slings, Tables F-15, F-16, F-17 and F-18 shall apply.
 - (b) All splices in rope slings provided by the employer shall be made in accordance with fiber rope manufacturers' recommendations.
 - (i) In manila rope, eye splices shall contain at least three full tucks, and short splices shall contain at least six full tucks (three on each side of the centerline of the splice).
 - (ii) In layed synthetic fiber rope, eye splices shall contain at least four full tucks, and short splices shall contain at least eight full tucks (four on each side of the centerline of the splice).

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- (iii) Strand end tails shall not be trimmed short (flush with the surface of the rope) immediately adjacent to the full tucks. This precaution applies to both eye and short splices and all types of fiber rope. For fiber ropes under 1-inch diameter, the tails shall project at least six rope diameters beyond the last full tuck. For fiber ropes 1-inch diameter and larger, the tails shall project at least 6 inches beyond the last full tuck. In applications where the projecting tails may be objectionable, the tails shall be tapered and spliced into the body of the rope using at least two additional tucks (which will require a tail length of approximately six rope diameters beyond the last full tuck).
- (iv) For all eye splices, the eye shall be sufficiently large to provide an included angle of not greater than 60° at the splice when the eye is placed over the load or support.
- (v) Knots shall not be used in lieu of splices.
- (vi) All fibre rope used for hoisting purposes or for the support of scaffolds, or any part thereof, shall be of high grade Manila hemp (abaca). Fibre rope used for the support of scaffolds, or any part thereof, except rope used for lashing or tying purposes, shall be not less than 3/4-inch in diameter.
- (vii) The maximum safe working load for fibre rope shall not exceed the maximum strength as shown in the following table:

STRENGTH OF HIGH GRADE MANILA (ABACA) ROPE COMMON LAY THREE STRAND		
Approximate Diameter in inches	Circumference in inches	Safe Load in pounds
3/16 (6 yarns)	1/2	98
1/4 (6 yarns)	3/4	116
5/16 (6 yarns)	1	200
3/8 (12 yarns)	1-1/8	241
7/16 (15 yarns)	1-1/4	291
15/32 (18 yarns)	1-3/8	350
1/2 (21 yarns)	1-1/2	408
9/16	1-3/4	526
5/8	2	666
3/4	2-1/4	816
13/16	2-1/2	983
7/8	2-3/4	1,166
1	3	1,366
1-1/16	3-1/4	1,683
1-1/8	3-1/2	1,833
1-1/4	3-3/4	2,083
1-5/16	4	2,365
1-3/8	4-1/4	2,666
1-1/2	4-1/2	2,916

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Note: This table is based on data contained in the U.S. Department of Commerce circular of the Bureau of Standards, No. 324.

- (5) Synthetic webbing (nylon, polyester, and polypropylene).
 - (a) The employer shall have each synthetic web sling marked or coded to show:
 - (i) Name or trademark of manufacturer.
 - (ii) Rated capacities for the type of hitch.
 - (iii) Type of material.
 - (b) Rated capacity shall not be exceeded.
- (6) Shackles and hooks.
 - (a) Table F-19 shall be used to determine the safe working loads of various sizes of shackles, except that higher safe working loads are permissible when recommended by the manufacturer for specific, identifiable products, provided that a safety factor of not less than 5 is maintained.
 - (b) The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. All hooks for which no applicable manufacturer's recommendations are available shall be tested to twice the intended safe working load before they are initially put into use. The employer shall maintain a record of the dates and results of such tests.
 - (c) Hooks shall not be modified by welding and/or drilling unless written approval by the manufacturer has been received.
 - (d) No open hook shall be used to hoist a bucket, cage, spreader, or skip, nor in any circumstances where the dislodgment of the hook could cause a risk of injury to workers. A safety-hook, mousing, or shackle shall be employed in such circumstances.
 - (e) When shackles are used, shackle pins shall be secured to prevent accidental withdrawal.
- (7) Slings.
 - (a) When slings are provided as a part of the hoisting equipment, every precaution shall be taken to keep them in a serviceable condition.
 - (i) Wire rope slings shall be frequently inspected and oiled.
 - (ii) Slings shall not be left where they can be damaged by traffic or form stumbling hazards.
 - (iii) Blocks or heavy bagging shall be used at corners of the load to protect the sling from sharp bending.
 - (iv) Wire rope which has been welded or been subject to welding of any kind shall not be used.

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- (v) The wire rope shall not be burned off with heat. This may weld the ends of the wires and strands together.
 - (b) When a load is lifted by a multiple rope sling the sling shall be so arranged that the strain can be equalized between the ropes.
 - (i) When using a sling with both ends engaged in the hoisting block, the sling shall be adjusted so as to equalize the stress.
 - (ii) Slings shall be placed on the load at safe lifting angles.
- (8) Material handling-General.
 - (a) When necessary to store building material on public thoroughfares, care shall be exercised to see that it is so piled or stacked as to be safe against collapse or falling over.
 - (b) Material shall be so located as not to interfere with, or present a hazard to employees, traffic or the public.
- (9) Placing and removal of forms.
 - (a) When moved or raised by crane, cableway, A-frame, or similar mechanical device, forms shall be securely attached to slings having a minimum safety factor of five. Use of No. 9 tie wire, fiber rope, and similar makeshift lashing shall be prohibited.
 - (b) Taglines shall be used in moving panels or other large sections of forms by crane or hoist.
 - (c) All hoisting equipment, including hoisting cable used to raise and move forms shall have a minimum safety factor incorporated in the manufacturer's design, and the manufacturer's recommended loading shall not be exceeded. Field-fabricated or shop fabricated hoisting equipment shall be designed or approved by a registered professional engineer, incorporating a minimum safety factor of five in its design. Panels and built-up form sections shall be equipped with metal hoisting brackets for attachment of slings.
- (10) Precast concrete and tilt-up operations.
 - (a) It shall be the responsibility of the contractor to use accessories which are designed to be compatible.
 - (b) The design capacity of all lifting devices and accessories shall be known. The devices and accessories with the appropriate capacity shall be used.
 - (c) Prior to pouring the panels of a tilt-up type construction job, a set of plans or job specifications, including lifting procedures, shall be drawn up.
 - (i) These plans shall be at the job site and made available upon request.
 - (ii) Any changes made in the rigging procedure of a tilt-up panel or slab shall provide the same degree of safety as required by the original plans.

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- (iii) The plans or specifications shall contain the following information:
 - (A) The type, size, and location of all lifting inserts.
 - (B) The type, size, and location of all brace inserts or fittings for guy wires in each panel and floor or support.
 - (C) The size of braces or guys to be used.
 - (D) The compression strength which concrete panels must attain prior to being lifted.
- (iv) The following conditions shall be included in the erection process and shall be incorporated in the design plan:
 - (A) Inserts to be installed for lifting sections of tilt-up precast panels shall be designed mechanically to maintain a safety factor of three.
 - (B) Lifting inserts which are embedded or otherwise attached to precast concrete members, other than the tilt-up members, shall be capable of supporting at least four times the maximum intended load applied or transmitted to them.
 - (C) The compression strength of the concrete shall be such that when the proper type, size, and amount of inserts are installed a minimum safety factor of two will be maintained.
- (v) Lifting hardware shall be capable of supporting at least five times the maximum intended load applied or transmitted to the lifting hardware.
- (vi) Lifting bolts or other lifting devices which have been bent, worn, or are otherwise defective shall be discarded.
- (vii) Manufactured products shall not be altered in a manner which would reduce the safe working load to less than its original value.
- (viii) Inserts shall be positioned so that bolts, or lifting devices, when inserted, will be perpendicular to the face on which they are placed.
- (d) Design of the panels and layout of the pour shall be made in such a manner so that when picking, the top of the panel will be away from the crane. If this is not possible, the contractor shall consult with a representative of the department and the crane company involved to determine the procedure to be followed in lifting and placing in its permanent position safely. Panels shall be lifted and handled in such a manner that they will not strike the hoisting equipment, in case of failure.
- (e) A qualified rigging person shall be designated and shall consult with the crane operator on lifting procedures prior to making the pick. The qualified rigging person shall be located in such a position during the pick of the panel that they can observe both the crane operator and the employees working in the immediate area.

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- (11) Rigging in prestressed and post tensioned.
- (a) Stressed members shall be handled at pick points specifically designated on the manufacturer's drawings.
 - (b) Stressed members shall be lifted with lifting devices recommended by the manufacturer or the engineer in charge.
 - (c) No one shall be allowed under stressed members during lifting and erection.

[Statutory Authority: Chapter 49.17.010, .040, .050, .060 RCW. 98-13-069 (Order 94-29), § 296-155-330, filed 6/15/98, effective 8/15/98. Chapter 49.17 RCW. 94-15-096 (Order 94-07), § 296-155-330, filed 7/20/94, effective 9/20/94. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-330, filed 1/21/86. Statutory Authority: RCW 49.17.040, 49.17.150, and 49.17.240. 79-08-115 (Order 79-9), § 296-155-330, filed 7/31/79; Order 76-29, § 296-155-330, filed 9/30/76; Order 74-26, § 296-155-330, filed 5/7/74, effective 6/6/74.]

WAC 296-155-335 Disposal of waste materials.

- (1) Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, an enclosed chute of wood, or equivalent material, shall be used. For the purpose of this subsection, an enclosed chute is a slide, closed in on all sides, through which material is moved from a high place to a lower one.
- (2) When debris is dropped without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 20 feet back from the projected edge of the opening above. Signs warning of the hazard of falling materials shall be posted at each level. Removal shall not be permitted in this lower area until debris handling ceases above.
- (3) All scrap lumber, waste material, and rubbish shall be removed from the immediate work area as the work progresses.
- (4) Disposal of waste material or debris by burning shall comply with local fire regulations.
- (5) All solvent waste, oily rags, and flammable liquids shall be kept in fire resistant covered containers until removed from the worksite.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-335, filed 1/21/86; Order 74-26, § 296-155-335, filed 5/7/74, effective 6/6/74.]

WAC 296-155-34901 Table F-1.

TABLE F-1
RATED CAPACITY (WORKING LOAD LIMIT),
FOR ALLOY STEEL CHAIN SLINGS*
RATED CAPACITY
(WORKING LOAD LIMIT), POUNDS

Table F-1: PART 1-Double Slings

Chain Size, Inches	Single Branch Sling- 90 degree Loading	Double Sling Vertical Angle ¹		
		30 degree	45 degree Horizontal Angle ²	60 degree
		60 degree	45 degree	30 degree
1/4	3,250	5,560	4,550	3,250
3/8	6,600	11,400	9,300	6,600
1/2	11,250	19,500	15,900	11,250
5/8	16,500	28,500	23,300	16,500
3/4	23,000	39,800	32,500	23,000
7/8	28,750	49,800	40,600	28,750
1	38,750	67,100	54,800	38,750
1-1/8	44,500	77,000	63,000	44,500
1-1/4	57,500	99,500	81,000	57,500
1-3/8	67,000	116,000	94,000	67,000
1-1/2	80,000	138,000	112,500	80,000
1-3/4	100,000	172,000	140,000	100,000

WAC 296-155-34901 (Cont.) Table F-1 Part 2.

Table F-1: PART 2-Triple and Quadruple Slings

Chain Size, Inches	Single Branch Sling- 90 degree Loading	Triple and Quadruple Sling Vertical Angle ¹		
		30 degree	45 degree Horizontal Angle ²	60 degree
		60 degree	45 degree	30 degree
1/4	3,250	8,400	6,800	4,900
3/8	6,600	17,000	14,000	9,900
1/2	11,250	29,000	24,000	17,000
5/8	16,000	43,000	35,000	24,500
3/4	23,000	59,500	48,500	34,500
7/8	28,750	74,500	61,000	43,000
1	38,750	101,000	82,000	58,000
1-1/8	44,500	115,500	94,500	66,500
1-1/4	57,500	149,000	121,500	86,000
1-3/8	67,000	174,000	141,000	100,500
1-1/2	80,000	207,000	169,000	119,500
1-3/4	100,000	258,000	210,000	150,000

¹ Rating of multileg slings adjusted for angle of loading measured as the included angle between the inclined leg and the vertical.

² Rating of multileg slings adjusted for angle of loading between the inclined leg and the horizontal plane of the load.

* Other grades of proof tested steel chain include proof coil, BBB coil and hi-test chain. These grades are not recommended for overhead lifting and therefore are not covered by this standard.

[Order 74-26, § 296-155-335 (part), Table F-1 (codified as WAC 296-155-34901), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34902 Table F-2.

TABLE F-2 MAXIMUM ALLOWABLE WEAR AT ANY POINT OF LINK	
Chain Size (inches)	Maximum Allowable Wear (inch)
1/4	3/64
3/8	5/64
1/2	7/64
5/8	9/64
3/4	5/32
7/8	11/64
1	3/16
1-1/8	7/32
1-1/4	1/4
1-3/8	9/32
1-1/2	5/16
1-3/4	11/32

[Order 74-26, § 296-155-335 (part), Table F-2 (codified as WAC 296-155-34902), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34903 Table F-3.

TABLE F-3 RATED CAPACITIES FOR SINGLE LEG SLINGS 6x19 AND 6x37 CLASSIFICATION IMPROVED PLOW STEEL GRADE ROPE WITH FIBER CORE (FC)										
Rope		Rated Capacities, Tons (2,000 lb)								
Dia. (Inches)	Constr.	Vertical			Choker			Vertical Basket*		
		HT	MS	S	HT	MS	S	HT	MS	S
1/4	6x19	0.49	0.51	0.55	0.37	0.38	0.41	0.99	1.0	1.1
5/16	6x19	0.76	0.79	0.85	0.57	0.59	0.64	1.5	1.6	1.7
3/8	6x19	1.1	1.1	1.2	0.80	0.85	0.91	2.1	2.2	2.4
7/16	6x19	1.4	1.5	1.6	1.1	1.1	1.2	2.9	3.0	3.3
1/2	6x19	1.8	2.0	2.1	1.4	1.5	1.6	3.7	3.9	4.3
9/16	6x19	2.3	2.5	2.7	1.7	1.9	2.0	4.6	5.0	5.4
5/8	6x19	2.8	3.1	3.3	2.1	2.3	2.5	5.6	6.2	6.7
3/4	6x19	3.9	4.4	4.8	2.9	3.3	3.6	7.8	8.8	9.5
7/8	6x19	5.1	5.9	6.4	3.9	4.5	4.8	10.0	12.0	13.0
1	6x19	6.7	7.7	8.4	5.0	5.8	6.3	13.0	15.0	17.0
1-1/8	6x19	8.4	9.5	10.0	6.3	7.1	7.9	17.0	19.0	21.0
1-1/4	6x37	9.8	11.0	12.0	7.4	8.3	9.2	20.0	22.0	25.0
1-3/8	6x37	12.0	13.0	15.0	8.9	10.0	11.0	24.0	27.0	30.0
1-1/2	6x37	14.0	16.0	17.0	10.0	12.0	13.0	28.0	32.0	35.0
1-5/8	6x37	16.0	18.0	21.0	12.0	14.0	15.0	33.0	37.0	41.0
1-3/4	6x37	19.0	21.0	24.0	14.0	16.0	18.0	38.0	43.0	48.0
2	6x37	25.0	28.0	31.0	18.0	21.0	23.0	49.0	55.0	62.0

HT = Hand tucked splice and hidden tuck splice.

For hidden tuck splice (IWRC) use value in HT column.

MS = Mechanical splice.

S = Swaged or zinc poured socket.

* = These values only apply when the D/d ratio for HT slings is 10 or greater, and for MS and S slings is 20 or greater where:

D = Diameter of curvature around which the body of the sling is bent.

d = Diameter of rope.

[Order 74-26, § 296-155-335 (part), Table F-3 (codified as WAC 296-155-34903), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34904 Table F-4.

TABLE F-4 RATED CAPACITIES FOR SINGLE LEG SLING 6x19 and 6x37 CLASSIFICATION IMPROVED PLOW STEEL GRADE ROPE WITH INDEPENDENT WIRE ROPE CORE (IWRC)										
Rope		Rated Capacities, Tons (2,000 lb)								
Dia. (Inches)	Constr.	Vertical			Choker			Vertical Basket*		
		HT	MS	S	HT	MS	S	HT	MS	S
1/4	6x19	0.53	0.56	0.59	0.40	0.42	0.44	1.0	1.1	1.2
5/16	6x19	0.81	0.87	0.92	0.61	0.65	0.69	1.6	1.7	1.8
3/8	6x19	1.1	1.2	1.3	0.86	0.93	0.98	2.3	2.5	2.6
7/16	6x19	1.5	1.7	1.8	1.2	1.3	1.3	3.1	3.4	3.5
1/2	6x19	2.0	2.2	2.3	1.5	1.6	1.7	3.9	4.4	4.6
9/16	6x19	2.5	2.7	2.9	1.8	2.1	2.2	4.9	5.5	5.8
5/8	6x19	3.0	3.4	3.6	2.2	2.5	2.7	6.0	6.8	7.2
3/4	6x19	4.2	4.9	5.1	3.1	3.6	3.8	8.4	9.7	10.0
7/8	6x19	5.5	6.6	6.9	4.1	4.9	5.2	11.0	13.0	14.0
1	6x19	7.2	8.5	9.0	5.4	6.4	6.7	14.0	17.0	18.0
1-1/8	6x19	9.0	10.0	11.0	6.8	7.8	8.5	18.0	21.0	23.0
1-1/4	6x37	10.0	12.0	13.0	7.9	9.2	9.9	21.0	24.0	26.0
1-3/8	6x37	13.0	15.0	16.0	9.6	11.0	12.0	25.0	29.0	32.0
1-1/2	6x37	15.0	17.0	19.0	11.0	13.0	14.0	30.0	35.0	38.0
1-5/8	6x37	18.0	20.0	22.0	13.0	15.0	17.0	35.0	41.0	44.0
1-3/4	6x37	20.0	24.0	26.0	15.0	18.0	19.0	41.0	47.0	51.0
2	6x37	26.0	30.0	33.0	20.0	23.0	25.0	53.0	61.0	66.0

HT = Hand tucked splice.

For hidden tuck splice (IWRC) use Table F3 values in HT column.

MS = Mechanical splice.

S = Swaged or zinc poured socket.

* = These values only apply when the D/d ratio for HT slings is 10 or greater, and for MS and S slings is 20 or greater where:

D = Diameter of curvature around which the body of the sling is bent.

d = Diameter of rope.

[Order 74-26, § 296-155-335 (part), Table F-4 (codified as WAC 296-155-34904), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34905 Table F-5.

TABLE F-5 RATED CAPACITIES FOR SINGLE LEG SLINGS.CABLE LAND ROPE - MECHANICAL SPLICE ONLY 7x7x7 and 7x7x19 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE 7x6x19 IWRC CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE				
Rope		Rated Capacities, Tons (2,000 lb)		
Dia. (Inches)	Constr.	Vertical	Choker	Vertical Basket*
1/4	7x7x7	0.50	0.38	1.0
3/8	7x7x7	1.1	0.81	2.2
1/2	7x7x7	1.8	1.4	3.7
5/8	7x7x7	2.8	2.1	5.5
3/4	7x7x7	3.8	2.9	7.6
5/8	7x7x19	2.9	2.2	5.8
3/4	7x7x19	4.1	3.0	8.1
7/8	7x7x19	5.4	4.0	11.0
1	7x7x19	6.9	5.1	14.0
1-1/8	7x7x19	8.2	6.2	16.0
1-1/4	7x7x19	9.9	7.4	20.0
3/4	7x6x19 IWRC	3.8	2.8	7.6
7/8	7x6x19 IWRC	5.0	3.8	10.0
1	7x6x19 IWRC	6.4	4.8	13.0
1-1/8	7x6x19 IWRC	7.7	5.8	15.0
1-1/4	7x6x19 IWRC	9.2	6.9	18.0
1-5/16	7x6x19 IWRC	10.0	7.5	20.0
1-3/8	7x6x19 IWRC	11.0	8.2	22.0
1-1/2	7x6x19 IWRC	13.0	9.6	26.0

* = These values only apply when the D/d ratio is 10 or greater where:

D = Diameter of curvature around which the body of the sling is bent.

d = Diameter of rope.

[Order 74-26, § 296-155-335 (part), Table F-5 (codified as WAC 296-155-34905), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34906 Table F-6.

TABLE F-6 RATED CAPACITIES FOR SINGLE LEG SLINGS 8-PART AND 6-PART BRAIDED ROPE 6x7 and 6x19 CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE 7x7 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE							
Component Ropes		Rated Capacities, Tons (2,000) lb					
Diameter		Vertical		Choker		Vertical Basket to 30 degrees*	
(Inches)	Constr.	8-Part	6-Part	8-Part	6 -Part	8-Part	6-Part
3/32	6x7	0.42	0.32	0.32	0.24	0.74	0.55
1/8	6x7	0.76	0.57	0.57	0.42	1.3	0.98
3/16	6x7	1.7	1.3	1.3	0.94	2.9	2.2
3/32	7x7	0.51	0.39	0.38	0.29	0.89	0.67
1/8	7x7	0.95	0.71	0.71	0.53	1.6	1.2
3/16	7x7	2.1	1.5	1.5	1.2	3.6	2.7
3/16	6x19	1.7	1.3	1.3	0.98	3.0	2.2
1/4	6x19	3.1	2.3	2.3	1.7	5.3	4.0
5/16	6x19	4.8	3.6	3.6	2.7	8.3	6.2
3/8	6x19	6.8	5.1	5.1	3.8	12.0	8.9
7/16	6x19	9.3	6.9	6.9	5.2	16.0	12.0
1/2	6x19	12.0	9.0	9.0	6.7	21.0	15.0
9/16	6x19	15.0	11.0	11.0	8.5	26.0	20.0
5/8	6x19	19.0	14.0	14.0	10.0	32.0	24.0
3/4	6x19	27.0	20.0	20.0	15.0	46.0	35.0
7/8	6x19	36.0	27.0	27.0	20.0	62.0	47.0
1	6x19	47.0	35.0	35.0	26.0	81.0	61.0

* These values only apply when the D/d ratio is 20 or greater where:
D = Diameter of curvature around which the body of the sling is bent.
d = Diameter of component rope.

[Order 74-26, § 296-155-335 (part), Table F-6 (codified as WAC 296-155-34906), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34907 Table F-7.

TABLE F-7 RATED CAPACITIES FOR 2-LEG and 3-LEG BRIDLE SLINGS 6x19 AND 6x37 CLASSIFICATION IMPROVED PLOW STEEL GRADE ROPE WITH FIBER CORE (FC)							
TABLE F-7: PART 1-2-Leg Bridle Slings							
Rope		Rated Capacities, Tons (2,000 lb)					
		2-Leg Bridle Slings					
Dia.		Vert 30 degree		45 degree		Vert 60 degree	
(Inches)	Constr.	Horz 60 degree		Angle		Horz 30 degree	
		HT	MS	HT	MS	HT	MS
1/4	6x19	0.85	0.88	0.70	0.72	0.49	0.51
5/16	6x19	1.3	1.4	1.1	1.1	0.76	0.79
3/8	6x19	1.8	1.9	1.5	1.6	1.1	1.1
7/16	6x19	2.5	2.6	2.0	2.2	1.4	1.5
1/2	6x19	3.2	3.4	2.6	2.8	1.8	2.0
9/16	6x19	4.0	4.3	3.2	3.5	2.3	2.5
5/8	6x19	4.8	5.3	4.0	4.4	2.8	3.1
3/4	6x19	6.8	7.6	5.5	6.2	3.9	4.4
7/8	6x19	8.9	10.0	7.3	8.4	5.1	5.9
1	6x19	11.0	13.0	9.4	11.0	6.7	7.7
1-1/8	6x19	14.0	16.0	12.0	13.0	8.4	9.5
1-1/4	6x37	17.0	19.0	14.0	16.0	9.8	11.0
1-3/8	6x37	20.0	23.0	17.0	19.0	12.0	13.0
1-1/2	6x37	24.0	27.0	20.0	22.0	14.0	16.0
1-5/8	6x37	28.0	32.0	23.0	26.0	16.0	18.0
1-3/4	6x37	33.0	37.0	27.0	30.0	19.0	21.0
2	6x37	43.0	48.0	35.0	39.0	25.0	28.0

HT = Hand tucked splice.

MS = Mechanical splice.

WAC 296-155-34907 (Cont.) Table F-7.

TABLE F-7: PART 2-3-Leg Bridle Slings							
Rope		Rated Capacities, Tons (2,000) lb 3-Leg Bridle Slings					
Dia. (Inches)	Constr.	Vert 30 degree Horz 60 degree		45 degree Angle		Vert 60 degree Horz 30 degree	
		HT	MS	HT	MS	HT	MS
1/4	6x19	0.85	0.88	0.70	0.72	0.49	0.51
5/16	6x19	1.3	1.4	1.1	1.1	0.76	0.79
3/8	6x19	1.8	1.9	1.5	1.6	1.1	1.1
7/16	6x19	2.5	2.6	2.0	2.2	1.4	1.5
1/2	6x19	3.2	3.4	2.6	2.8	1.8	2.0
9/16	6x19	4.0	4.3	3.2	3.5	2.3	2.5
5/8	6x19	4.8	5.3	4.0	4.4	2.8	3.1
3/4	6x19	6.8	7.6	5.5	6.2	3.9	4.4
7/8	6x19	8.9	10.0	7.3	8.4	5.1	5.9
1	6x19	11.0	13.0	9.4	11.0	6.7	7.7
1-1/8	6x19	14.0	16.0	12.0	13.0	8.4	9.5
1-1/4	6x37	17.0	19.0	14.0	16.0	9.8	11.0
1-3/8	6x37	20.0	23.0	17.0	19.0	12.0	13.0
1-1/2	6x37	24.0	27.0	20.0	22.0	14.0	16.0
1-5/8	6x37	28.0	32.0	23.0	26.0	16.0	18.0
1-3/4	6x37	33.0	37.0	27.0	30.0	19.0	21.0
2	6x37	43.0	48.0	35.0	39.0	25.0	28.0

HT = Hand tucked splice.

MS = Mechanical splice.

[Order 74-26, § 296-155-335 (part), Table F-7 (codified as WAC 296-155-34907), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34908 Table F-8.

TABLE F-8 RATED CAPACITIES FOR 2-LEG and 3-LEG BRIDLE SLINGS 6x19 AND 6x37 CLASSIFICATION IMPROVED PLOW STEEL GRADE ROPE WITH INDEPENDENT WIRE ROPE CORE (IWRC)							
TABLE F-8: PART 1-2-Leg Bridle Slings							
Rope		Rated Capacities, Tons (2,000 lb)					
		2-Leg Bridle Slings					
Dia.		Vert 30 degree		45 degree		Vert 60 degree	
(Inches)	Constr.	Horz 60 degree		Angle		Horz 30 degree	
		HT	MS	HT	MS	HT	MS
1/4	6x19	0.92	0.97	0.75	0.79	0.53	0.56
5/16	6x19	1.4	1.5	1.1	1.2	1.81	0.87
3/8	6x19	2.0	2.1	1.6	1.8	1.1	1.2
7/16	6x19	2.7	2.9	2.2	2.4	1.5	1.7
1/2	6x19	3.4	3.8	2.8	3.1	2.0	2.2
9/16	6x19	4.3	4.8	3.5	3.9	2.5	2.7
5/8	6x19	5.2	5.9	4.2	4.8	3.0	3.4
3/4	6x19	7.3	8.4	5.9	6.9	4.2	4.9
7/8	6x19	9.6	11.0	7.8	9.3	5.5	6.6
1	6x19	12.0	15.0	10.0	12.0	7.2	8.5
1-1/8	6x19	16.0	18.0	13.0	15.0	9.0	10.0
1-1/4	6x37	18.0	21.0	15.0	17.0	10.0	12.0
1-3/8	6x37	22.0	25.0	18.0	21.0	13.0	15.0
1-1/2	6x37	26.0	30.0	21.0	25.0	15.0	17.0
1-5/8	6x37	31.0	35.0	25.0	29.0	18.0	20.0
1-3/4	6x37	35.0	41.0	29.0	33.0	20.0	24.0
2	6x37	46.0	53.0	37.0	43.0	26.0	30.0

HT = Hand tucked splice.

MS = Mechanical splice.

WAC 296-155-34908 (Cont.) Table F-8.

TABLE F-8: PART 2-3-Leg Bridle Slings							
Rope		Rated Capacities, Tons (2,000 lb) 3-Leg Bridle Slings					
Dia. (Inches)	Constr.	Vert 30 degree Horz 60 degree		45 degree Angle		Vert 60 degree Horz 30 degree	
		HT	MS	HT	MS	HT	MS
1/4	6x19	1.4	1.4	1.1	1.2	0.79	0.84
5/16	6x19	2.1	2.3	1.7	1.8	1.2	1.3
3/8	6x19	3.0	3.2	2.4	2.6	1.7	1.9
7/16	6x19	4.0	4.4	3.3	3.6	2.3	2.5
1/2	6x19	5.1	5.7	4.2	4.6	3.0	3.3
9/16	6x19	6.4	7.1	5.2	5.8	3.7	4.1
5/8	6x19	7.8	8.8	6.4	7.2	4.5	5.1
3/4	6x19	11.0	13.0	8.9	10.0	6.3	7.3
7/8	6x19	14.0	17.0	12.0	14.0	8.3	9.9
1	6x19	19.0	22.0	15.0	18.0	11.0	13.0
1-1/8	6x19	23.0	27.0	19.0	22.0	13.0	16.0
1-1/4	6x37	27.0	32.0	22.0	26.0	16.0	18.0
1-3/8	6x37	33.0	38.0	27.0	31.0	19.0	22.0
1-1/2	6x37	39.0	45.0	32.0	37.0	23.0	26.0
1-5/8	6x37	46.0	53.0	38.0	43.0	27.0	31.0
1-3/4	6x37	53.0	61.0	43.0	50.0	31.0	35.0
2	6x37	68.0	79.0	56.0	65.0	40.0	46.0

HT = Hand tucked splice

MS = Mechanical splice

[Order 74-26, § 296-155-335 (part), Table F-8 (codified as WAC 296-155-34908), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34909 Table F-9.

TABLE F-9 RATED CAPACITIES FOR 2-LEG and 3-LEG BRIDLE SLINGS CABLE LAID ROPE - MECHANICAL SPLICE ONLY 7x7x7 and 7x7x19 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE 7x6x19 IWRC CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE				
TABLE F-9: PART 1-2 Leg Bridle Slings				
Rope		Rated Capacities, Tons (2,000 lb)		
		2-Leg Bridle Slings		
Dia. (Inches)	Constr.	Vert 30 degree Horz 60 degree	45 degree Angle	Vert 60 degree Horz 30 degree
1/4	7x7x7	0.87	0.71	0.50
3/8	7x7x7	1.9	1.5	1.1
1/2	7x7x7	3.2	2.6	1.8
5/8	7x7x7	4.8	3.9	2.8
3/4	7x7x7	6.6	5.4	3.8
5/8	7x7x19	5.0	4.1	2.9
3/4	7x7x19	7.0	5.7	4.1
7/8	7x7x19	9.3	7.6	5.4
1	7x7x19	12.0	9.7	6.9
1-1/8	7x7x19	14.0	12.0	8.2
1-1/4	7x7x19	17.0	14.0	9.9
3/4	7x6x19 IWRC	6.6	5.4	3.8
7/8	7x6x19 IWRC	8.7	7.1	5.0
1	7x6x19 IWRC	11.0	9.0	6.4
1-1/8	7x6x19 IWRC	13.0	11.0	7.7
1-1/4	7x6x19 IWRC	16.0	13.0	9.2
1-5/16	7x6x19 IWRC	17.0	14.0	10.0
1-3/8	7x6x19 IWRC	19.0	15.0	11.0
1-1/2	7x6x19 IWRC	22.0	18.0	13.0

WAC 296-155-34909 (Cont.) Table F-9.

TABLE F-9: PART 2-3-Leg Bridle Slings				
Rope		Rated Capacities, Tons (2,000 lb) 3-Leg Bridle Slings		
Dia. (Inches)	Constr.	Vert 30 degree Horz 60 degree	45 degree Angle	Vert 60 degree Horz 30 degree
1/8	7x7x7	0.87	0.71	0.50
1/4	7x7x7	1.3	1.1	0.75
3/8	7x7x7	2.8	2.3	1.6
1/2	7x7x7	4.8	3.9	2.8
5/8	7x7x7	7.2	5.9	4.2
3/4	7x7x7	9.9	8.1	5.7
5/8	7x7x19	7.5	6.1	4.3
3/4	7x7x19	10.0	8.6	6.1
7/8	7x7x19	14.0	11.0	8.1
1	7x7x19	18.0	14.0	10.0
1-1/8	7x7x19	21.0	17.0	12.0
1-1/4	7x7x19	26.0	21.0	15.0
3/4	7x6x19 IWRC	9.9	8.0	5.7
7/8	7x6x19 IWRC	13.0	11.0	7.5
1	7x6x19 IWRC	17.0	13.0	9.6
1-1/8	7x6x19 IWRC	20.0	16.0	11.0
1-1/4	7x6x19 IWRC	24.0	20.0	14.0
1-5/16	7x6x19 IWRC	26.0	21.0	15.0
1-3/8	7x6x19 IWRC	28.0	23.0	16.0
1-1/2	7x6x19 IWRC	33.0	27.0	19.0

[Order 74-26, § 296-155-335 (part), Table F-9 (codified as WAC 296-155-34909), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34910 Table F-10.

TABLE F-10 RATED CAPACITIES FOR 2-LEG and 3-LEG BRIDLE SLINGS 8-PART and 6-PART BRAIDED ROPE 6x7 and 6x19 CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE 7x7 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE							
TABLE F-10: PART 1-2-Leg Bridle Slings							
Component Rope		Rated Capacities, Tons (2,000) lb 2-Leg Bridle Slings					
Diameter		Vert 30 degree Horz 60 degree		45 degree Angle		Vert 60 degree Horz 30 degree	
(Inches)	Constr.	8-Part	6-Part	8-Part	6-Part	8-Part	6-Part
3/32	6x7	0.74	0.55	0.60	0.45	0.42	0.32
1/8	6x7	1.3	0.98	1.1	0.80	0.76	0.57
3/16	6x7	2.9	2.2	2.4	1.8	1.7	1.3
3/32	7x7	0.89	0.67	0.72	0.55	0.51	0.39
1/8	7x7	1.6	1.2	1.3	1.0	0.95	0.71
3/16	7x7	3.6	2.7	2.9	2.2	2.1	1.5
3/16	6x19	3.0	2.2	2.4	1.8	1.7	1.3
1/4	6x19	5.3	4.0	4.3	3.2	3.1	2.3
5/16	6x19	8.3	6.2	6.7	5.0	4.8	3.6
3/8	6x19	12.0	8.9	9.7	7.2	6.8	5.1
7/16	6x19	16.0	12.0	13.0	9.8	9.3	6.9
1/2	6x19	21.0	15.0	17.0	13.0	12.0	9.0
9/16	6x19	26.0	20.0	21.0	16.0	15.0	11.0
5/8	6x19	32.0	24.0	26.0	20.0	19.0	14.0
3/4	6x19	46.0	35.0	38.0	28.0	27.0	20.0
7/8	6x19	62.0	47.0	51.0	38.0	36.0	27.0
1	6x19	81.0	61.0	66.0	50.0	47.0	35.0

WAC 296-155-34910 (Cont.) Table F-10.

TABLE F-10: PART 2-3-LEG BRIDLE SLINGS							
Component Rope		Rated Capacities, Tons (2,000) lb 3-Leg Bridle Slings					
		Vert 30 degree Horz 60 degree		45 degree Angle		Vert 60 degree Horz 30 degree	
Diameter (Inches)	Constr.	8-Part	6-Part	8-Part	6-Part	8-Part	6-Part
1/16	6x7	0.74	0.55	0.60	0.45	0.42	0.32
3/32	6x7	1.1	0.83	0.90	0.68	0.64	0.48
1/8	6x7	2.0	1.5	1.6	1.2	1.1	0.85
3/16	6x7	4.4	3.3	3.6	2.7	2.5	1.9
3/32	7x7	1.3	1.0	1.1	0.82	0.77	0.58
1/8	7x7	2.5	1.8	2.0	1.5	1.4	1.1
3/16	7x7	5.4	4.0	4.4	3.3	3.1	2.3
3/16	6x19	4.5	3.4	3.7	2.8	2.6	1.9
1/4	6x19	8.0	6.0	6.5	4.9	4.6	3.4
5/16	6x19	12.0	9.3	10.0	7.6	7.1	5.4
3/8	6x19	18.0	13.0	14.0	11.0	10.0	7.7
7/16	6x19	24.0	18.0	20.0	15.0	14.0	10.0
1/2	6x19	31.0	23.0	25.0	19.0	18.0	13.0
9/16	6x19	39.0	29.0	32.0	24.0	23.0	17.0
5/8	6x19	48.0	36.0	40.0	30.0	28.0	21.0
3/4	6x19	69.0	52.0	56.0	42.0	40.0	30.0
7/8	6x19	94.0	70.0	76.0	57.0	54.0	40.0
1	6x19	122.0	91.0	99.0	74.0	70.0	53.0

[Order 74-26, § 296-155-335 (part), Table F-10 (codified as WAC 296-155-34910), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34911 Table F-11.

TABLE F-11 RATED CAPACITIES FOR STRAND LAID GROMMET- HAND TUCKED IMPROVED PLOW STEEL GRADE ROPE				
Rope Body		Rated capacities, Tons (2,000 lb)		
Dia. (inches)	Constr.	Vertical	Choker	Vertical Basket*
1/4	7x19	0.85	0.64	1.7
5/16	7x19	1.3	1.0	2.6
3/8	7x19	1.9	1.4	3.8
7/16	7x19	2.6	1.9	5.2
1/2	7x19	3.3	2.5	6.7
9/16	7x19	4.2	3.1	8.4
5/8	7x19	5.2	3.9	10.0
3/4	7x19	7.4	5.6	15.0
7/8	7x19	10.0	7.5	20.0
1	7x19	13.0	9.7	26.0
1-1/8	7x19	16.0	12.0	32.0
1-1/4	7x37	18.0	14.0	37.0
1-3/8	7x37	22.0	16.0	44.0
1-1/2	7x37	26.0	19.0	52.0

* These values only apply when the D/d ratio is 5 or greater where:

D = Diameter of curvature around which rope is bent.

d = Diameter of rope body.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-34911, filed 1/21/86; Order 74-26, § 296-155-335 (part), Table F-11 (codified as WAC 296-155-34911), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34912 Table F-12.

TABLE F-12 RATED CAPACITIES FOR CABLE LAID GROMMET-HAND TUCKED 7x6x7 and 7x6x19 CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE 7x7x7 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE				
Cable Body		Rated capacities, Tons (2,000 lb)		
Dia. (inches)	Constr.	Vertical	Choker	Vertical Basket*
3/8	7x6x7	1.3	0.95	2.5
9/16	7x6x7	2.8	2.1	5.6
5/8	7x6x7	3.8	2.8	7.6
3/8	7x7x7	1.6	1.2	3.2
9/16	7x7x7	3.5	2.6	6.9
5/8	7x7x7	4.5	3.4	9.0
5/8	7x6x19	3.9	3.0	7.9
3/4	7x6x19	5.1	3.8	10.0
15/16	7x6x19	7.9	5.9	16.0
1-1/8	7x6x19	11.0	8.4	22.0
1-5/16	7x6x19	15.0	11.0	30.0
1 1/2	7x6x19	19.0	14.0	39.0
1-11/16	7x6x19	24.0	18.0	49.0
1-7/8	7x6x19	30.0	22.0	60.0
2-1/4	7x6x19	42.0	31.0	84.0
2-5/8	7x6x19	56.0	42.0	112.0

* These values only apply when the D/d ratio is 5 or greater where:

D = Diameter of curvature around which cable body is bent.

d = Diameter of cable body.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-34912, filed 1/21/86; Order 74-26, § 296-155-335 (part), Table F-12 (codified as WAC 296-155-34912), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34913 Table F-13.

TABLE F-13 RATED CAPACITIES FOR STRAND LAID ENDLESS SLINGS- MECHANICAL JOINT IMPROVED PLOW STEEL GRADE ROPE				
Rope Body		Rated capacities, Tons (2,000 lb)		
Dia. (inches)	Constr.	Vertical	Choker	Vertical Basket*
1/4	6x19 IWRC	0.92	0.69	1.8
3/8	6x19 IWRC	2.0	1.5	4.1
1/2	6x19 IWRC	3.6	2.7	7.2
5/8	6x19 IWRC	5.6	4.2	11.0
3/4	6x19 IWRC	8.0	6.0	16.0
7/8	6x19 IWRC	11.0	8.1	21.0
1	6x19 IWRC	14.0	10.0	28.0
1-1/8	6x19 IWRC	18.0	13.0	35.0
1-1/4	6x37 IWRC	21.0	15.0	41.0
1-3/8	6x37 IWRC	25.0	19.0	50.0
1-1/2	6x37 IWRC	29.0	22.0	59.0

* These values only apply when the D/d ratio is 5 or greater where:

D = Diameter of curvature around which rope is bent.

d = Diameter of rope body.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-34913, filed 1/21/86; Order 74-26, § 296-155-335 (part), Table F-13 (codified as WAC 296-155-34913), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34914 Table F-14.

TABLE F-14 RATED CAPACITIES FOR CABLE LAID ENDLESS SLINGS-MECHANICAL JOINT 7 x 7 x 7 AND 7 x 7 x 19 CONSTRUCTION GALVANIZED AIRCRAFT GRADE ROPE 7 x 6 x 19 IWRC CONSTRUCTION IMPROVED PLOW STEEL GRADE ROPE				
Cable Body		Rated capacities, Tons (2,000 lb)		
Dia. (inches)	Constr.	Vertical	Choker	Vertical Basket*
1/4	7x7x7	0.83	0.62	1.6
3/8	7x7x7	1.8	1.3	3.5
1/2	7x7x7	3.0	2.3	6.1
5/8	7x7x7	4.5	3.4	9.1
3/4	7x7x7	6.3	4.7	12.0
5/8	7x7x19	4.7	3.5	9.5
3/4	7x7x19	6.7	5.0	13.0
7/8	7x7x19	8.9	6.6	18.0
1	7x7x19	11.0	8.5	22.0
1-1/8	7x7x19	14.0	10.0	28.0
1-1/4	7x7x19	17.0	12.0	33.0
3/4	7x6x19 IWRC	6.2	4.7	12.0
7/8	7x6x19 IWRC	8.3	6.2	16.0
1	7x6x19 IWRC	10.0	7.9	21.0
1-1/8	7x6x19 IWRC	13.0	9.7	26.0
1-1/4	7x6x19 IWRC	16.0	12.0	31.0
1-3/8	7x6x19 IWRC	18.0	14.0	37.0
1-1/2	7x6x19 IWRC	22.0	16.0	43.0

* These values only apply when the D/d value is 5 or greater where:

D = Diameter of curvature around which cable body is bent.

d = Diameter of cable body.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-34914, filed 1/21/86; Order 74-26, § 296-155-335 (part), Table F-14 (codified as WAC 296-155-34914), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34915 Table F-15.

TABLE F-15 MANILA ROPE SLINGS								
TABLE F-15: PART 1-Eye and Eye Sling								
Rated Capacity in Pounds (Safety Factor = 5)								
Eye and Eye Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	7.5	2,650	550	250	1,100	900	750	550
9/16	10.4	3,450	700	350	1,400	1,200	1,000	700
5/8	13.3	4,400	900	450	1,800	1,500	1,200	900
3/4	16.7	5,400	1,100	550	2,200	1,900	1,500	1,100
13/16	19.5	6,500	1,300	650	2,600	2,300	1,800	1,300
7/8	22.5	7,700	1,500	750	3,100	2,700	2,200	1,500
1	27.0	9,000	1,800	900	3,600	3,100	2,600	1,800
1-1/16	31.3	10,500	2,100	1,100	4,200	3,600	3,000	2,100
1-1/8	36.0	12,000	2,400	1,200	4,800	4,200	3,400	2,400
1-1/4	41.7	13,500	2,700	1,400	5,400	4,700	3,800	2,700
1-5/16	47.9	15,000	3,000	1,500	6,000	5,200	4,300	3,000
1-1/2	59.9	18,500	3,700	1,850	7,400	6,400	5,200	3,700
1-5/8	74.6	22,500	4,500	2,300	9,000	7,800	6,400	4,500
1-3/4	89.3	26,500	5,300	2,700	10,500	9,200	7,500	5,300
2	107.5	31,000	6,200	3,100	12,500	10,500	8,800	6,200
2-1/8	125.0	36,000	7,200	3,600	14,500	12,500	10,000	7,200
2-1/4	146.0	41,000	8,200	4,100	16,500	14,000	11,500	8,200
2-1/2	166.7	46,500	9,300	4,700	18,500	16,000	13,000	9,300
2-5/8	190.8	52,000	10,500	5,200	21,000	18,000	14,500	10,500

WAC 296-155-34915 (Cont.)

Table F-15: PART 2-Endless Sling								
Rated Capacity in Pounds (Safety Factor = 5)								
Endless Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	7.5	2,650	950	500	1,900	1,700	1,400	950
9/16	10.4	3,450	1,200	600	2,500	2,200	1,800	1,200
5/8	13.3	4,400	1,600	800	3,200	2,700	2,200	1,600
3/4	16.7	5,400	2,000	950	3,900	3,400	2,800	2,000
13/16	19.5	6,500	2,300	1,200	4,700	4,100	3,300	2,300
7/8	22.5	7,700	2,800	1,400	5,600	4,800	3,900	2,800
1	27.0	9,000	3,200	1,600	6,500	5,600	4,600	3,200
1-1/16	31.3	10,500	3,800	1,900	7,600	6,600	5,400	3,800
1-1/8	36.0	12,000	4,300	2,200	8,600	7,500	6,100	4,300
1-1/4	41.7	13,500	4,900	2,400	9,700	8,400	6,900	4,900
1-5/16	47.9	15,000	5,400	2,700	11,000	9,400	7,700	5,400
1-1/2	59.9	18,500	6,700	3,300	13,500	11,500	9,400	6,700
1-5/8	74.6	22,500	8,100	4,100	16,000	14,000	11,500	8,000
1-3/4	89.3	26,500	9,500	4,800	19,000	16,500	13,500	9,500
2	107.5	31,000	11,000	5,600	22,500	19,500	16,000	11,000
2-1/8	125.0	36,000	13,000	6,500	26,000	22,500	18,500	13,000
2-1/4	146.0	41,000	15,000	7,400	29,500	25,500	21,000	15,000
2-1/2	166.7	46,500	16,500	8,400	33,500	29,000	23,500	16,500
2-5/8	190.8	52,000	18,500	9,500	37,500	32,500	26,500	18,500

[Order 74-26, § 296-155-335 (part), Table F-15 (codified as WAC 296-155-34915), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34916 Table F-16.

TABLE F-16 NYLON ROPE SLINGS								
TABLE F-16: PART 1-Eye and Eye Sling								
Rated Capacity in Pounds (Safety Factor = 9)								
Eye and Eye Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	6.5	6,080	700	350	1,400	1,200	950	700
9/16	8.3	7,600	850	400	1,700	1,500	1,200	850
5/8	10.5	9,880	1,100	550	2,200	1,900	1,600	1,100
3/4	14.5	13,490	1,500	750	3,000	2,600	2,100	1,500
13/16	17.0	16,150	1,800	900	3,600	3,100	2,600	1,800
7/8	20.0	19,000	2,100	1,100	4,200	3,700	3,000	2,100
1	26.0	23,750	2,600	1,300	5,300	4,600	3,700	2,600
1-1/16	29.0	27,360	3,000	1,500	6,100	5,300	4,300	3,000
1-1/8	34.0	31,350	3,500	1,700	7,000	6,000	5,000	3,500
1-1/4	40.0	35,625	4,000	2,000	7,900	6,900	5,600	4,000
1-5/16	45.0	40,850	4,500	2,300	9,100	7,900	6,400	4,500
1-1/2	55.0	50,350	5,600	2,800	11,000	9,700	7,900	5,600
1-5/8	68.0	61,750	6,900	3,400	13,500	12,000	9,700	6,900
1-3/4	83.0	74,100	8,200	4,100	16,500	14,500	11,500	8,200
2	95.0	87,400	9,700	4,900	19,500	17,000	13,500	9,700
2-1/8	109.0	100,700	11,000	5,600	22,500	19,500	16,000	11,000
2-1/4	129.0	118,750	13,000	6,600	26,500	23,000	18,500	13,000
2-1/2	149.0	133,000	15,000	7,400	29,500	25,500	21,000	15,000
2-5/8	168.0	153,900	17,100	8,600	34,000	29,500	24,000	17,000

WAC 296-155-34916 (Cont.)

Table F-16: PART 2-Endless Sling								
Rated Capacity in Pounds (Safety Factor = 9)								
Endless Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	6.5	6,080	1,200	600	2,400	2,100	1,700	1,200
9/16	8.3	7,600	1,500	750	3,000	2,600	2,200	1,500
5/8	10.5	9,880	2,000	1,000	4,000	3,400	2,800	2,000
3/4	14.5	13,490	2,700	1,400	5,400	4,700	3,800	2,700
13/16	17.0	16,150	3,200	1,600	6,400	5,600	4,600	3,200
7/8	20.0	19,000	3,800	1,900	7,600	6,600	5,400	3,800
1	26.0	23,750	4,800	2,400	9,500	8,200	6,700	4,800
1-1/16	29.0	27,360	5,500	2,700	11,000	9,500	7,700	5,500
1-1/8	34.0	31,350	6,300	3,100	12,500	11,000	8,900	6,300
1-1/4	40.0	35,625	7,100	3,600	14,500	12,500	10,000	7,100
1-5/16	45.0	40,850	8,200	4,100	16,500	14,000	12,000	8,200
1-1/2	55.0	50,350	10,000	5,000	20,000	17,500	14,000	10,000
1-5/8	68.0	61,750	12,500	6,200	24,500	21,500	17,500	12,500
1-3/4	83.0	74,100	15,000	7,400	29,500	27,500	21,000	15,000
2	95.0	87,400	17,500	8,700	35,000	30,500	24,500	17,500
2-1/8	109.0	100,700	20,000	10,000	40,500	35,000	28,500	20,000
2-1/4	129.0	118,750	24,000	12,000	47,500	41,000	33,500	24,000
2-1/2	149.0	133,000	26,500	13,500	53,000	46,000	37,500	26,500
2-5/8	168.0	153,900	31,000	15,500	61,500	53,500	43,500	31,000

[Order 74-26, § 296-155-335 (part), Table F-16 (codified as WAC 296-155-34916), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34917 Table F-17.

TABLE F-17 POLYESTER ROPE SLINGS								
TABLE F-17: PART 1-Eye and Eye Sling								
Rated Capacity in Pounds (Safety Factor = 9)								
Eye and Eye Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	8.0	6,080	700	350	1,400	1,200	950	700
9/16	10.2	7,600	850	400	1,700	1,500	1,200	850
5/8	13.0	9,500	1,100	550	2,100	1,800	1,500	1,100
3/4	17.5	11,875	1,300	650	2,600	2,300	1,900	1,300
13/16	21.0	14,725	1,600	800	3,300	2,800	2,300	1,600
7/8	25.0	17,100	1,900	950	3,800	3,300	2,700	1,900
1	30.5	20,900	2,300	1,200	4,600	4,000	3,300	2,300
1-1/16	34.5	24,225	2,700	1,300	5,400	4,700	3,800	2,700
1-1/8	40.0	28,025	3,100	1,600	6,200	5,400	4,400	3,100
1-1/4	46.3	31,540	3,500	1,800	7,000	6,100	5,000	3,500
1-5/16	52.5	35,625	4,000	2,000	7,900	6,900	5,600	4,000
1-1/2	66.8	44,460	4,900	2,500	9,900	8,600	7,000	4,900
1-5/8	82.0	54,150	6,000	3,000	12,000	10,400	8,500	6,000
1-3/4	98.0	64,410	7,200	3,600	14,500	12,500	10,000	7,200
2	118.0	76,000	8,400	4,200	17,000	14,500	12,000	8,400
2-1/8	135.0	87,400	9,700	4,900	19,500	17,000	13,500	9,700
2-1/4	157.0	101,650	11,500	5,700	22,500	19,500	16,000	11,500
2-1/2	181.0	115,900	13,000	6,400	26,000	22,500	18,000	13,000
2-5/8	205.0	130,150	14,500	7,200	29,000	25,000	20,500	14,500

WAC 296-155-34917 (Cont.)

Table F-17: PART 2-Endless Sling								
Rated Capacity in Pounds (Safety Factor = 9)								
Endless Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	8.0	6,080	1,200	600	2,400	2,100	1,700	1,200
9/16	10.2	7,600	1,500	750	3,000	2,600	2,200	1,500
5/8	13.0	9,500	1,900	950	3,800	3,300	2,700	1,900
3/4	17.5	11,875	2,400	1,200	4,800	4,100	3,400	2,400
13/16	21.0	14,725	2,900	1,500	5,900	5,100	4,200	2,900
7/8	25.0	17,100	3,400	1,700	6,800	5,900	4,800	3,400
1	30.5	20,900	4,200	2,100	8,400	7,200	5,900	4,200
1-1/16	34.5	24,225	4,800	2,400	9,700	8,400	6,900	4,800
1-1/8	40.0	28,025	5,600	2,800	11,000	9,700	7,900	5,600
1-1/4	46.3	31,540	6,300	3,200	12,500	11,000	8,900	6,300
1-5/16	52.5	35,625	7,100	3,600	14,500	12,500	10,000	7,100
1-1/2	66.8	44,460	8,900	4,400	18,000	15,500	12,500	8,900
1-5/8	82.0	54,150	11,000	5,400	21,500	19,000	15,500	11,000
1-3/4	98.0	64,410	13,000	6,400	26,000	22,500	18,000	13,000
2	118.0	76,000	15,000	7,600	30,500	26,500	21,500	15,000
2-1/8	135.0	87,400	17,500	8,700	35,000	30,500	24,500	17,500
2-1/4	157.0	101,650	20,500	10,000	40,500	35,000	29,000	20,500
2-1/2	181.0	115,900	23,000	11,500	46,500	40,000	33,000	23,000
2-5/8	205.0	130,150	26,000	13,000	52,000	45,000	37,000	26,000

[Order 74-26, § 296-155-335 (part), Table F-17 (codified as WAC 296-155-34917), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34918 Table F-18.

TABLE F-18 POLYPROPYLENE ROPE SLINGS								
TABLE F-18: PART 1-Eye and Eye Sling								
Rated Capacity in Pounds (Safety Factor = 6)								
Eye and Eye Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	Angle of Rope to Vertical 0 deg	30 deg	45 deg	60 deg
1/2	4.7	3,990	650	350	1,300	1,200	950	650
9/16	6.1	4,845	800	400	1,600	1,400	1,100	800
5/8	7.5	5,890	1,000	500	2,000	1,700	1,400	1,000
3/4	10.7	8,075	1,300	700	2,700	2,300	1,900	1,300
13/16	12.7	9,405	1,600	800	3,100	2,700	2,200	1,600
7/8	15.0	10,925	1,800	900	3,600	3,200	2,600	1,800
1	18.0	13,300	2,200	1,100	4,400	3,800	3,100	2,200
1-1/16	20.4	15,200	2,500	1,300	5,100	4,400	3,600	2,500
1-1/8	23.7	17,385	2,900	1,500	5,800	5,000	4,100	2,900
1-1/4	27.0	19,950	3,300	1,700	6,700	5,800	4,700	3,300
1-5/16	30.5	22,325	3,700	1,900	7,400	6,400	5,300	3,700
1-1/2	38.5	28,215	4,700	2,400	9,400	8,100	6,700	4,700
1-5/8	47.5	34,200	5,700	2,900	11,500	9,900	8,100	5,700
1-3/4	57.0	40,850	6,800	3,400	13,500	12,000	9,600	6,800
2	69.0	49,400	8,200	4,100	16,500	14,500	11,500	8,200
2-1/8	80.0	57,950	9,700	4,800	19,500	16,500	13,500	9,700
2-1/4	92.0	65,550	11,000	5,500	22,000	19,000	15,500	11,000
2-1/2	107.0	76,000	12,500	6,300	25,500	22,000	18,000	12,500
2-5/8	120.0	85,500	14,500	7,100	28,500	24,500	20,000	14,500

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Table F-18: PART 2-Endless Sling								
Rated Capacity in Pounds (Safety Factor = 6)								
Endless Sling								
Basket Hitch								
Rope Diameter	Nominal Weight per 100 ft in Pounds	Minimum Breaking Strength in Pounds	Angle of Rope to Horizontal					
			90 deg	30 deg	45 deg	30 deg		
Nominal in Inches			Vertical Hitch	Choker Hitch	0 deg	30 deg	45 deg	60 deg
1/2	4.7	3,990	1,200	600	2,400	2,100	1,700	1,200
9/16	6.1	4,845	1,500	750	2,900	2,500	2,100	1,500
5/8	7.5	5,890	1,800	900	3,500	3,100	2,500	1,800
3/4	10.7	8,075	2,400	1,200	4,900	4,200	3,400	2,400
13/16	12.7	9,405	2,800	1,400	5,600	4,900	4,000	2,800
7/8	15.0	10,925	3,300	1,600	6,600	5,700	4,600	3,300
1	18.0	13,300	4,000	2,000	8,000	6,900	5,600	4,000
1-1/16	20.4	15,200	4,600	2,300	9,100	7,900	6,500	4,600
1-1/8	23.7	17,385	5,200	2,600	10,500	9,000	7,400	5,200
1-1/4	27.0	19,950	6,000	3,000	12,000	10,500	8,500	6,000
1-5/16	30.5	22,325	6,700	3,400	13,500	11,500	9,500	6,700
1-1/2	38.5	28,215	8,500	4,200	17,000	14,500	12,000	8,500
1-5/8	47.5	34,200	10,500	5,100	20,500	18,000	14,500	10,500
1-3/4	57.0	40,850	12,500	6,100	24,500	21,000	17,500	12,500
2	69.0	49,400	15,000	7,400	29,500	25,500	21,000	15,000
2-1/8	80.0	57,950	17,500	8,700	35,000	30,500	24,500	17,500
2-1/4	92.0	65,550	19,500	9,900	39,500	34,000	28,000	19,500
2-1/2	107.0	76,000	23,000	11,500	45,500	39,500	32,500	23,000
2-5/8	120.0	85,500	25,500	13,000	51,500	44,500	36,500	25,500

[Order 74-26, § 296-155-335 (part), Table F-18 (codified as WAC 296-155-34918), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34919 Table F-19.

TABLE F-19 SAFE WORKING LOADS FOR SHACKLES (in tons of 2,000 pounds)		
Material size (inches)	Pin diameter (inches)	Safe working load
1/2	5/8	1.4
5/8	3/4	2.2
3/4	7/8	3.2
7/8	1	4.3
1	1-1/8	5.6
1-1/8	1-1/4	6.7
1-1/4	1-3/8	8.2
1-3/8	1-1/2	10.0
1-1/2	1-5/8	11.9
1-3/4	2	16.2
2	2-1/4	21.2

[Order 74-26, § 296-155-335 (part), Table F-19 (codified as WAC 296-155-34919), filed 5/7/74, effective 6/6/74.]

WAC 296-155-34920 Table F-20.

TABLE F-20 NUMBER AND SPACING OF U-BOLT WIRE ROPE CLIPS		
Improved plow steel	Number of clips	Minimum spacing (inches)
	----- Drop forged	
3/8 and under	2	3
1/2	3	3
5/8	3	3
3/4	4	4-1/2
7/8	4	5-1/4
1	5	6
1-1/8	6	7
1-1/4	6	8
1-3/8	7	9
1-1/2	7	10

[Statutory Authority: Chapter 49.17 RCW. 94-15-096 (Order 94-07), § 296-155-34920, filed 7/20/94, effective 9/20/94. Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-34920, filed 1/21/86; Order 74-26, § 296-155-335 (part), Table F-20 (codified as WAC 296-155-34920), filed 5/7/74, effective 6/6/74.]